

Me, My Health and My Children's Health

Teacher and Technician Flight Case Guide



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Health & Safety

Important Notices

- Please read all Health and Safety information provided before setting out and running the sessions.
- Place the cholesterol, gels, fake blood solutions, and TAE in the prep room fridge as soon as you receive the flight case.
- Please check the inventory and alert LifeLab (lifelab@soton.ac.uk) if you believe anything to be missing.
- Please let LifeLab (lifelab@soton.ac.uk) know if any piece of equipment is faulty or damaged.
- Once equipment has been used please place back into the flight case as you found it.
- Ensure you check the inventory so that all equipment is returned. The inventory can be found in your flight case.

LifeLab

LifeLab actively engages with young people, teachers and researchers. The aim is to introduce science that explains how lifestyle choices at an early age can drastically affect young people's health and the health of their future children.

Through hands-on learning, LifeLab empowers young people to make healthier choices and reduce their risk of developing chronic diseases (such as heart disease and diabetes) later in life. This hands-on approach to learning breaks down boundaries, makes science accessible, and brings it to life; inspiring children to consider careers in healthcare, science, and medicine.

Research in Southampton has focused on the processes by which the developmental environment affects later risk of ill health such as obesity or non-communicable disease. The insights from this research are highly relevant to today's society, because they raise issues about personal choice, responsibility for health and the need for better informed decisions about diet, lifestyle and the ethical dilemmas faced by technological societies.

LifeLab draws on this research to raise teenagers' awareness and interest in the science underpinning health issues, make positive changes to adolescent health-related attitudes and help young people break cycles of unhealthy behaviour. Its theoretical basis includes education research, which has explored how teenagers can engage in effective decision-making about socio-scientific issues, such as health issues, by considering relevant values and scientific concepts.¹

¹ <https://www.uhs.nhs.uk/ClinicalResearchinSouthampton/Research/Facilities/NIHR-Southampton-Biomedical-Research-Centre/Public-collaboration-and-participation/Examples-of-projects/LifeLab-educating-young-people-for-lifelong-health.aspx>

Using the Flight Case

The flight case is intended to give the students as close of an experience to the LifeLab Day as possible. The equipment provided for each activity is intended to be used by one class at a time. However, it does contain enough consumables and chemicals for two classes. We have packaged up all the activities and resources you need into this case. The case contains practical equipment that you can use to run your own LifeLab Day lessons. Alongside the practical equipment, you have also been provided with a LifeLab Day Teacher PowerPoint, teacher memory stick and this instruction guide to support you with the delivery, timing and sequence of your lessons. The flight case also contains the resources you need to deliver the LifeLab pre and post lessons.

Please ensure that you use the Inventory placed inside your flight case as well as your equipment list to organise and return your equipment. You will also need to ensure that you have referred to the important Notices in the front of this guide.

A LifeLab Day at University Hospital would run from 9:30am to 2:30am. Your day at school could be set up to run as a whole day, part of a day or as separate lessons.

These are the sequence and approximate timings for the LifeLab Day activities:

- Introduction, Health Circus & CPR – One lesson
- Extracting DNA Practical (optional) – One lesson
- Gel Electrophoresis Practical, Epigenetics and NCD Risk* – One to two lessons
- Meet the Scientists, Health Pledge & Downloading the LifeLab app** – One lesson

* While the gels are running during the gel electrophoresis practical, you could choose to go through the epigenetics and non-communicable diseases resources and videos, or show the 'Meet the Scientist' videos.

**Instruction for downloading the LifeLab app can be found in the Appendix of this guide.

Equipment

This is a list of the equipment found in your flight case. This equipment list has been organised so that you can see what is required for each practical or activity from the flight case. For some activities, further equipment will need to be ordered from your school technicians. This equipment, where required, has been included below each table in this equipment list.

In your flight case, you will also have a full inventory for the equipment that has been sent to you. Make sure you keep this inventory safe, as you will need to check this list of as you pack away the flight case to return it to LifeLab.

This is what you will need for the pre and post lessons:

Equipment	Quantity	Returned
Resource Packs for Pre and Post Lessons	2	
Teachers Guides	2	
Jenga	4	
Student Workbooks	2	

This is what you will need to run the health circus:

Equipment	Quantity	Returned
Floor Scales	1	
Height Measure	1	
Sit and Reach Box	1	
Health Circus Instruction Cards	1 set	
30mL Blood Glucose Sample (Chris and Gemma)	2	
Mini Anne (with kneeling pad)	2	
Jump Mat	1	
Blood Pressure Monitor and Cuff	1	
Hand Grip	1	
Body Fat Meter	1	
10uL mini pipette	2	
Blood Glucose Meter	1	
Glucose strip packs	2	
Tower of Hanoi	1	
Tape Measure	2	
Calculator	6	
Bag of Yellow tips (>10)	2	
Microfuge tubes (for blood glucose samples)	4	
Power Pack with lead	2	
Gel Electrophoresis tank with lid	8	

Gel Castors	8	
10uL pipettes	8	
Student Gel Electrophoresis Instructions	8	
iPads	2	
Smoking & Diabetes App information sheets	2 sets	

To be ordered from school technician: spotting tiles for the testing blood glucose station and stopwatches for the Tower of Hanoi station.

This is what you need to run the gel electrophoresis practical:

Equipment	Quantity	Returned
Light Box	2	
Boxes of safety Spec	3	
Lab Coats (various sizes)	30	
Bags of yellow tips (>10)	16	
White square Boats/trays	16	
5L Bottle 10xTAE (can be reused)	1	
Small plastic box with lid	8	
500ml x Fast Blast Blue stain (can be reused)	1	
Cholesterol Strips	16	
Agarose Gels	16	
Cooling Gel pack (for reuse by LL)	1	

This is what you will need to run the DNA extraction practical (*optional):

30ml Universals (A's)	70	
7mL Bijous (B's and C's)	140	

To be ordered from school technician: strawberries, NaCl (s) 20g, Washing Up Liquid 20ml, water 400ml, and ethanol.

You will also be provided with a range of posters and graphs to support the Health Circus activity.

Pre LifeLab Lessons

In the lead up to the LifeLab Day practical activities, you will need to ensure that your students have completed lessons 1-4 of the module. These are known as pre lessons. Lesson plans and PowerPoint's can be found in your LifeLab Teacher Guide and on your teachers' memory stick. Students should use and complete their Student Booklets alongside these lessons. Teacher Guides and Student Booklets along with all lesson resources have been provided in the flight case.

These are the pre-lessons that need to be completed before the LifeLab Day activities.

Lesson 1 How Scientist's Work

Lesson 2 Health and Scientific Data

Lesson 3 What are Health Risks?

Lesson 4 Assessing Health

Once the pre lessons and LifeLab Day activities have been delivered, the post LifeLab lessons will need to be completed. Resources for the post lessons have also been provided in the flight case.

LifeLab Activities

Aims:

- Describe how scientists measure health
- Use scientific equipment safely to collect health measurement
- Explain how genes could affect your health
- Describe some of the research being carried out at the University and the Hospital
- Design a health pledge to improve their own long-term health

Health Circus Instructions – One lesson

Our equipment is not calibrated to the high level of accuracy needed to make any specific health assessment therefore the measurements are for reference only.

Aim of health circus:

- Students should use scientific equipment safely to collect health measurements

Using the health circus with your students:

You will need to set up the practical stations, detailed below, around your room. There are 8 stations in total. Each station should be set up with both the equipment and student instruction card. The student instructions have been provided in your flight case. As students visit each station, they should fill in the relevant sections in their student booklets. Chris's data, which they will also need to record in their booklets, can be found in the LifeLab Teacher's Guide. This data will need to be provided for the students.

Station 1: Is BMI a good indicator of health?

Equipment: floor scales, height measure

Students will need to:

- Measure their mass in kilograms.
- Measure their height in metres.
- Record their results in student booklet.
- Calculate their BMI using the equation in the booklet

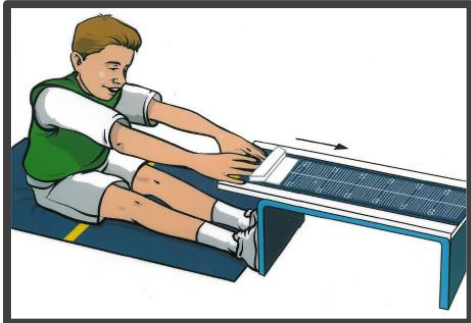
Results can be compared with the BMI chart on the instruction card for the station. However, students should be aware that the charts are for men and women aged 18+. Additional BMI charts have been placed in the flight case.

Station 2: How flexible are you?

Equipment: sit and reach box

Students will need to:

- Sit on the floor with their feet flat against the box.
- Have their toes pointing upwards towards the “toe” mark on the scale.
- Keep their legs fully extended, and stretch forward.
- Use both hands to push the slider as far as possible.



- Read the result from the yellow scale.
- Record their results in the student booklet.

You will need to make sure that students keep their feet flat on the box and stretch as far as they can. Students must hold the stretch for 2 seconds. They must not bend their knees. Students can compare their results with the chart on the instruction card for the station. However, students should be aware that the charts are for men and women aged 16-19.

Station 3: How high can you jump?

Equipment: 1 x jump mat

Students will need to:

- Wind the belt around their waist.
- Turn the dial GENTLY in the direction of the arrow to take the slack out of the string.
- Jump straight up.
- Record how high they could jump (they could take repeats and calculate an average mean).

Their result should be recorded in their student booklet.



Students should then compare their results with the chart on the instruction card for the station.

Station 4: What is your blood pressure?

Equipment: 1 x blood pressure monitor and cuff

Students will need to work in 2's or 3's to complete this station as students will need help to place and fit the cuff correctly on the arm.

Students will need to:

- Sit down with their arm resting on the table.
- 1st person should roll up their sleeves.
- The 2nd person should wrap the cuff around their partner's arm, lacing it on their upper arm as shown in the diagram on the instruction card. The cuff should be fixed in place using the Velcro strap.



- The 1st person should sit relaxed with their arm resting on the table. Then the start button can be pressed on the machine.
- Students will feel the cuff tighten and then loosen off.

Students should record their blood pressure measurement in their student booklet. They should record both numbers to give the systolic and diastolic values. Students can compare their results with the chart on the instruction card for the station.

Station 5: What is your waist measurement?

Equipment: 2 x tape measure

Students will need to:

- Find the top of their hipbone and the bottom of their ribs and breathe out naturally.
- They should then place the tape measure midway between these two points and wrap it around their waist.
- Students should then read their measurement and record their result in their student booklet.



Students can compare their result with the chart on the instruction card for the station. However, students should be aware that the charts are for men and women aged 18+.

Station 6: What is your grip strength?

Equipment: 1 x handgrip

Students will need to:

- Switch their meter on.
- Hold their meter so that the indicator faces outward.
- Check that the second joint of the pointing finger makes a right angle, if not they should turn the knob to adjust the grip width until it does.
- Stand upright, with their arm by their side.
- Squeeze the grip as hard as they can.
- Record their results in the student booklet and repeat with their other hand.

Students can compare your results with the chart on the instruction card.

Station 7: How can you measure your body fat?

Equipment: 1 x body fat meter

We have recently purchased another body fat meter. There is a different set of instructions for each meter; therefore you will need to match the photo on the instruction card to the meter that you have been sent.

IF A STUDENT IN YOUR CLASS HAS A PACEMAKER THEN THEY SHOULD NOT USE THIS DEVICE.

THE BODY FAT RATIO WILL BE HIGH IF THE STUDENT IS NOT HYDRATED.

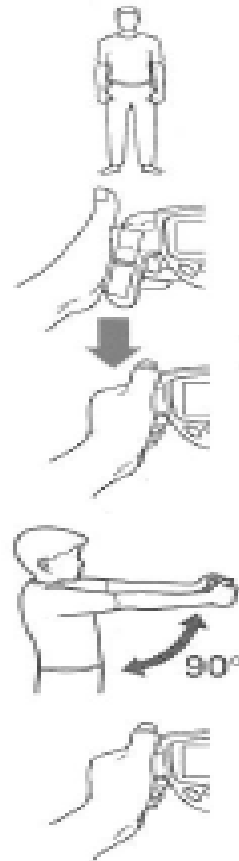
Machine Style 1:

This machine will provide a percentage body fat, and will indicate whether this is low, normal, high or too high, and will also display BMI. Levels of fluid intake prior to the use of this equipment will affect the reading.



Students will need to:

1. Push the **O/I** button to turn the machine on.
2. Push the **set** button to enter the setting mode.
3. Push the **▲** / **▼** buttons to enter their **height** in cm
4. Push the **set** button.
5. Push the **▲** / **▼** buttons to enter their **weight** in **kg**
6. Push the **set** button.
7. Push the **▲** / **▼** buttons to enter their **age** (**18 is the lowest, so students should choose 18 even if they are younger**).
8. Push the button to choose **male** or **female**.



When taking a measurement:

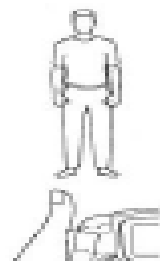
1. Students should stand with both feet slightly apart.
2. Hold the grip electrodes as shown in the picture.
3. Put their thumbs up, resting on the top of the unit.
4. Hold their arms straight out at a 90 degree angle to their body.
5. **Students must not move** during the measurement.
6. Push the start button to start recording their data.

Students should record their result in their student booklet.

Machine Style 2:



This machine will provide a percentage body fat, and will indicate whether this is low, normal, high or too high, and will also display BMI. Levels of fluid intake prior to the use of this equipment will affect the reading.



Students will need to:

1. Press the power button. When a 'beep' sound is heard, it is ready to set up.
2. Press 'SET' to set the personal information of height, weight, age, sex, etc. and use the ▲ / ▼ buttons to choose the value.
3. When this is completed, students will be ready

When taking a measurement:

1. Students should stand with both feet slightly apart.
2. Hold the grip electrodes as shown in the picture.
3. Put their thumbs up, resting on the top of the unit.
4. Hold their arms straight out at a 90 degree angle to their body.
5. **Students must not move** during the measurement.
6. Push the start button to start recording their data.

Students should record their result in their student booklet.

Station 7: How can we test for Type 2 Diabetes?

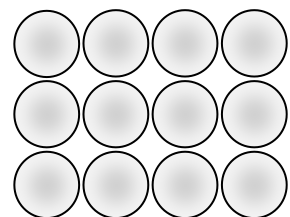
Testing blood glucose levels

Equipment: 2 x packs glucose strips, 2 x 10uL pipettes for glucose (+tips), fasting blood samples

You will need to order spotting tiles for this practical with your technician.

Students will need to:

Students should take a spotting tile/spot plate and label it so they know which sample belongs to each person (Chris and Gemma). The samples are fake blood.



A yellow pipette tip should be placed on the end of the micropipette.



Students should then press down on the button at the top of the micropipette and put the yellow tip into Chris's sample. They should then gently let go of the button and the liquid will then be sucked up into the yellow tip.

They will then need to transfer the sample to the spot plate. By again, gently pushing down on the button at the top of the micropipette, they can release the sample onto the tile.

The tip can then be changed over to a fresh one and the process can be repeated for Gemma's sample.

- **A new pipette tip must be used for Gemma's sample**
- **Students must be careful not to mix the samples up**

Once the samples are ready in the tile, students should then use the provided meter to measure the glucose levels in the samples.

Students should turn on the meter and insert a test strip into the meter. They need to insert the right end.



Students should gently touch the test end of the strip into the fake blood sample for just a few seconds. They will see the fake blood being drawn up into the three sections on the strip.

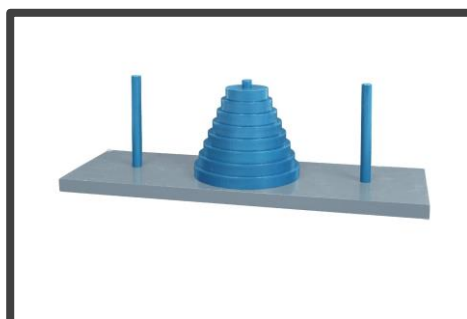


The meter will count down and then the result should appear. Students should record the result displayed in the screen into their student booklet. **A new glucose strip should then be used to record the results for the second sample.**

Students can compare their result with the chart on the instruction card for the station.

Station 8: Cognitive Ability Test

Tower of Hanoi



Equipment: 1 x Tower of Hanoi

You will need to order a stopwatch from your technician.

The goal of the puzzle is for students to move all the disks from the leftmost peg to the rightmost peg, following these rules:

1. Move only one disk at a time.
2. A larger disk may **not** be placed on top of a smaller disk.
3. All disks, except the one being moved, must be on a peg.
4. Time how long it takes them to complete the puzzle.

Students can compare their result with the times and moves in the purple box on the instruction card.

Station 9: Smoking & Diabetes App

Equipment: 2 x iPads and information sheets on how to access and use the apps

Students can follow the instructions on the information sheets to access and use the information apps on smoking and diabetes.

CPR

Equipment: 1 x Mini Anne

A laptop will be needed as part of this task in order to play an instruction video, followed by a metronome sound. Links and instructions provided below.

Most cardiac arrests happen at home, and 40% are witnessed by a bystander. Yet only 10% of victims survive. Most people do not know how to perform CPR.

Performing CPR promptly can save lives. Brain death occurs four to six minutes after the heart stops breathing. CPR effectively keeps blood flowing and provides oxygen to the brain and other vital organs, giving the victim a better chance for full recovery.

As part of the health circus, students can develop and practice their skills in CPR by using the Mini Anne CPR kit.



The Mini Anne is provided with a foam training mat to kneel on and an innovative pump bag. Follow the instructions on the bag (or this video link: <https://www.youtube.com/watch?v=irjxRBd4ZSA>) to inflate the Mini Anne. **DO NOT blow into tubing attached to the model to inflate it.** The bag is used to pump air into the model.

Once inflated, the Mini Anne will need to be placed in a clear floor space in the classroom so that students have enough space to practice.

Show students the following training video up to 5:06 minutes -

<https://laerdal.force.com/HelpCenter/s/article/Mini-Anne-Plus-CPR-Course-Video>

The video will demonstrate how to use the Mini Anne to deliver chest compressions. The built-in clicker allows learners to hear when the correct compression depth is reached, in accordance with international CPR guidelines.

For Health & Safety, students must not breathe into the model.

As part of CPR practice, students will need to maintain a regular chest compression rhythm. The compression rhythm should match a 100 beat metronome. The following audio can be played to students and they should compress on each beat of the metronome:

<https://www.youtube.com/watch?v=6oz0ivczNSY>

Alternatively, you could use and show the following video clip:

<https://www.youtube.com/watch?v=8y9zfEuzK7Q>

This is a video produced by the British Heart Foundation in conjunction with Vinnie Jones. This video shows how hands-only CPR can be preformed using Saturday Night Fever to time the beat compressions.

They will find this fast, so you may want to build up to this tempo. The optimal rate for compression is 100 to 120 per minute, which is “fairly fast” and hard to maintain without something to guide you. When chest compression is too slow or too fast, it decreases the effectiveness of CPR. That's where the metronome comes in. It offers a consistent guide.

At the end of the CPR practice, the Mini Anne can be deflated and then folded back into the bag for safe storage.

Extracting DNA Practical (*Optional) – One lesson

The flight case contains enough consumables to carry out this practical with 2 classes with each student doing the practical individually. Once the tubes have been used these can be disposed of according to your school's waste policy, but please return the press seal bag to the flight case as we can reuse these for further schools. This experiment requires the use of gloves, lab coats, and safety specs.

Below is a protocol for extracting DNA from a strawberry (including the set up/tech notes) but if your school already has its own protocol to carry this practical out please feel free to follow that.

Consumables (provided)

- 70x 30mL Universal tubes
- 140x 7mL bijous
- 70x small press-seal bags

Chemicals (not provided)

- Strawberries
- NaCl (Sodium Chloride) (20g)
- Washing up liquid (20mL)
- Water (400mL)
- Ethanol

PREP PROCEDURE

Strawberries

1. Purchase strawberries a couple of days before the practical is due to take place
2. Half or quarter the strawberries depending on size – each student will only need one strawberry segment
3. Place each segment into a press-seal bag

Lysis Buffer

1. Fill a beaker with 400mL tap water
2. If you have a magnetic stirrer, place the beaker onto the stirrer with a magnetic flea
3. Add 20mL of washing up liquid
4. Weigh out 20g NaCl and add to the solution
5. Aliquot 4-5mL of the lysis buffer into 70 of the 7mL bijous
6. Label these "B"

Ethanol

1. Aliquot 4-5mL of Ethanol into the remaining 70 7mL bijous
2. Label these tubes "C"

3. Place in the freezer for at least 30mins (can be left in freezer for an extended time) – Please use a spark free freezer if available.
4. Take out right before the practical

PRACTICAL PROCEDURE

1. Place a strawberry segment into a press-seal bag
2. Pour in solution “B” – this is the lysis buffer
3. Seal the bag
4. Crush the strawberry and mix with the solution in the bag
5. Carefully pour this into the 30mL tube – if there are sieves available you may want to use this to strain out the chunks of strawberry
6. Place this on the table and pour in solution “C” carefully to form a layer on top
7. DO NOT MIX
8. Around the barrier between layers thin white strands with tiny bubbles attached will form and appear – this are strands of DNA

Gel Electrophoresis Practical – One to two lessons

The flight case contains 8 gel tanks and 2 power packs. These can be reused between classes at different times to allow 8 groups or can be split between classes that run at the same time to have 4 groups. There are 16 gels and 16 cholesterol strips provided, and enough 10x TAE and 100x Fast Blast DNA stains to cover both classes. (Both 10x TAE and 100x Fast Blast DNA stain **must be** poured back into the bottle for reuse and return). This experiment requires the use of gloves, lab coats, and safety specs.

Equipment

- 8x Gel Tanks with Lids
- 8x Gel Castors
- 2x Power Packs and leads (each one can run up to 4 gels at a time)
- 2x A3 Light Boxes
- 8x 10 μ L Fixed Volume Mini Pipettes
- 8x staining trays
- 8x washing trays

Consumables

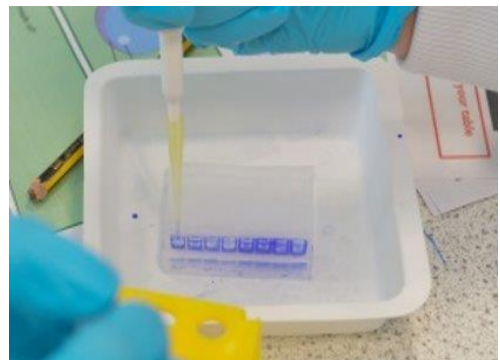
- 16x bags of yellow tips
- 16x agarose gels

Chemicals

- 5L 10x TAE
- 500mL 100x Fast Blast DNA stain
- 16x Cholesterol strips

SETTING UP GEL

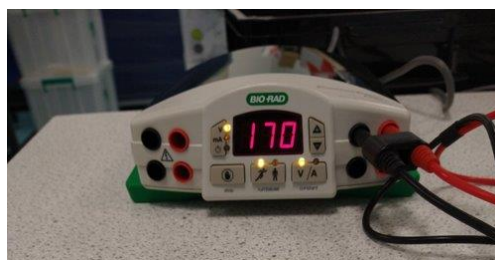
1. Remove the gels from the fridge and unwrap the number you require.
2. Place the gels into the gel castors
 - a. Position the gel on the table so that the wells (holes) are along the top of the gel
3. Load the gel with the cholesterol strips (one strip per gel)
 - a. Firmly place a yellow tip onto the micropipette
 - b. Push and hold the plunger down
 - c. Pierce the foil on sample 'a' on the cholesterol strip
 - d. Slowly release the plunger to draw up the sample
 - e. Place the end of the tip into the hole on the left – do not pierce the gel
 - f. Slowly push and hold the plunger down to



- expel the sample into the well (hole)
- g. Remove the tip from the well and release the plunger
 - h. Change the tip and repeat for each sample (a-h)

RUNNING THE GEL

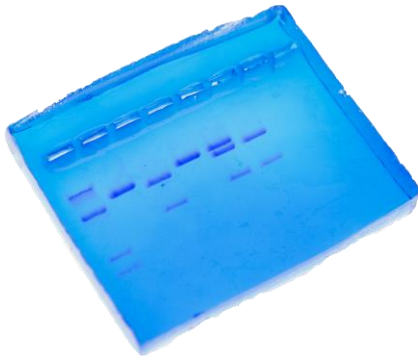
4. Place the gel in its castor into the gel tank with the loaded wells closest to the negative electrode (black)
5. Pour 10x TAE into the tank to cover the gel – do not exceed the max line
6. Place the lid onto the tank, matching the coloured electrodes.
7. Plug the wires into the power pack, matching the colours
8. Set the power pack
 - a. Plug the power pack in and turn it on
 - b. Set V/A button to V
 - c. Select V on the V/mA/timer button
 - d. Set the V to 170 using the arrows
9. Run the gels for 30mins, by pressing the run button
10. Press the stop button to end the process



STAINING GEL AND VIEWING RESULTS

11. Carefully remove the gel in its castor and drain TAE from the gel into the tank
12. Place the gel (out of castor) into staining tray.
13. Pour stain on to cover the gel
14. Leave for 2-3mins. Do not exceed 3mins
15. Transfer the gel from the stain into the washing tray
16. Wash in warm water for 10secs, shaking the whole time
17. Change the water and leave for 5 mins
18. Gently shake once every minute
19. Repeat steps 17 and 18 once more
20. Remove the gel from the water and leave to develop for 5-15mins if there is time
21. Place the gel onto the light box to view your results
22. Pour TAE and Stain back into their respective bottles





The following tasks will take one lesson to complete:

Making a Health Pledge

As part of the LifeLab Day activities, students will be required to make a health pledge. The health pledge, shown below, can be found as an A3 colour copy in the LifeLab Teacher's Guide. An electronic copy is also stored on the teachers' memory stick. The health pledge can also be found on pages 42-43 of the LifeLab student booklet.

In the first part of this task, students will need to discuss ideas for their health pledge in pairs or small groups. While carrying out this discussion, students should focus on the questions being asked in the speech bubbles and work to answer as many of these as possible before forming their health pledge. To support students in this discussion and forming their health pledge, practice engaging with them in Healthy Conversation Skills using "What?" and "How?" questions.

Healthy Conversation Skills training and support can be found at:

www.southampton.ac.uk/lifelab/professional-development.page

Password: LifeLab01

Once students have formed their health pledge they should aim to fill in the numbered and coloured boxes in order, **apart from the final orange box**, which they will reflect on in later lessons.

Level Up Your Life

Discuss with a partner the following questions.....

1. What area of your lifestyle could you change to improve your health?
2. How important is this for you?
3. What are the possible changes you could make to improve this area of your life?
4. What would be the best change to fit in with your lifestyle?
5. What difference will this change make to your life?
6. How confident are you that you can do this on a scale of 1-5?

After your discussion fill in the boxes below:

1. My health pledge is to.....

2. What is the first step you will take to start this pledge?

3. How will you make it measurable?
e.g. When will you start? How often? Which days?
How many? How long?

4. What might make it difficult for you to achieve your pledge?

5. How could you get over these difficulties?
Who might support you with this pledge?

6. How long will it take you to achieve this pledge?
What will be the positive impact on your health?

Back at school - 7. How successful was your pledge?
1 2 3 4 5
Not very successful successful
What will be your next steps?

Level up Your Life

Meet the Scientists

LifeLab has recorded several interviews with scientists and researchers who work at Southampton University and University Hospital Southampton. These interviews are available to view via the link: www.efolio.soton.ac.uk/blog/lifelab/meet-the-scientist/

The screenshot shows the 'Meet the Scientist' page on the University of Southampton website. The page features a navigation bar with links like 'Welcome to LifeLab', 'Blog', 'About us', 'Contact us', and 'Meet the Scientist'. Below the navigation, there is a section titled 'Meet the Scientist' with a brief introduction. The main content area displays three scientist profiles, each with a photo, name, title, and a QR code linking to their career profile and video interview. The profiles shown are Dr Catherine Pointer, Ben Johnson, and Kim Bull.

As part of the LifeLab Day activities, students can watch these videos.

Page 37 of the LifeLab student booklet can be used for students to record and reflect on the roles of the scientists they have listened to.

LIFELAB
Activities

Meet the Scientists

Scientist 1 /

Which scientist did you listen to?

Give 2 interesting facts you found out:

-
-

Scientist 2 /

Which scientist did you listen to?

Give 2 interesting facts you found out:


-
-

Having now met a scientist, what three words would you now use to describe scientists? /

Why is research important? What are the possible real world applications?

Why do you think people choose to become scientists?

Would you consider a **STEM** (Science, Technology, Engineering, Maths) career?



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Appendix

Using the LifeLab App

19/03/2021

Lifelab+ Guide Sheet



A guide to installing and running Lifelab+ on iOS and Android

Getting Started:

Users should be able to search and find the app for download on either the Google Play Store or the App store by searching "**Lifelab**".

Alternatively:



On your web browser (Safari) go to:

bit.ly/lifelabappstore OR

Scan this QR Code:



On your web browser (Chrome) go to:

bit.ly/lifelabplaystore OR

Scan this QR Code:



Notes on Logging in:

- This app requires a username and password OR a unique QR code (scanned with phone) to log in!
- Users should receive this via email or physically as a sheet of paper containing the details
- These codes are unique to the user - **Do not share these!**
- You must have an internet connection to log in - After logging in a connection is only required to use online features such as the map minigame.
- Users stay logged in until they delete the app, change device, or log out in the home screen's menu.

